### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/13/2018 03/13/2018	Zach Jojola

LM Start		Rating **	Α	Issue No.		3	
LM End		Issue Type +	Ма	Location * N/A			
Category	Earthen L	evee		GPS La	atitud	le/Longitude	
Calegory				Start		End	
Item		s & Maintenai	nce		0		0
item	Manuals				0		0
DWR ID DWR_NA0008_01_s _ 2017_3							
		Comn	nent Cod	le			
		Inchact	or Comm	ont			
		•	JI COIIIII	ieni			
District has levee O&M manuals.							

No Photos

LM Start		Rating **	Α	Issue No.		8	_
LM End		Issue Type +	Location *		N/A		
Category	Earthen L	evee		GPS La	atitud	le/Longitude	
Category				Start		End	
Item		Emergency Supplies &			0		0
пеш	Equipment				0		0
DWR ID	DWR_NA0	008_01_s _ 201	3_8				
		Comn	nent Cod	le			
			_				_
Inspector Comment							
District maintains a stockpile of flood fight response material.							

No Photos

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain

**FINAL DATA** 

+ Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence
En : Enforcement

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

## **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/13/2018 03/13/2018	Zach Jojola

LM Start		Rating **	Α	Issue No.		9	
LM End		Issue Type +	Ма	Location *		N/A	
Category	Earthen L	evee		GPS La	atituc	le/Longitude	
Calegory				Start		End	
Item	Flood Pre	paredness &	Training		0		0
item					0		0
DWR ID	DWR_NA0	008_01_s _ 201	3_9				
		Comn	nent Cod	le			
Inspector Comment							
District has	s written re	sponse plan a	and regu	lar flood fig	ht tr	aining.	

No Photos

LM Start	<b>0.25</b> Rating ** A/W			Issue No.		32
LM End	0.25	0.25 Issue Type + Ma				
Category	Suppleme	GPS Latitude/Longitude				
Calegory						End
Item	DWR UC	IP LMA Respo	nsibility	38.72222	22°	38.722222°
пеш				-121.66635	57°	-121.666357 °
DWR ID						

#### Comment Code

#### Inspector Comment

FS\_ID:48010 DS\_ID:19360 EP\_NO: 9302

Repair Type: No Action Needed

Crossing Status: Found

UCIP Comments: Pipe has been grouted in place under permit 18987, 2015Pipe completely rusted through on LS slope of levee at toe/headwall of concrete distribution box. Pipe needs replacement or proper abandonment. Pipe not visible at outlet.

FIELD\_STRUCT\_DESC: \*ABANDONED\* 36-inch corrugated metal drainage pipe through the levee, 27 feet below the crown. Slide gate on the waterside (WS) end. 12-foot by 6-foot concrete box on the landside (LS) end. (36-inch pipe [HLM 1.62] authorized under Automatic Board Order (ABO) issued as Permit No. 9302, 1974 - Barbara Lowe Elliott; 36-inch pipe abandoned by removing ends and pumping pipe full of concrete under Permit No. 18987, 2016 - Knaggs Ranch, LLC, care of John Brennan). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual 127, June 1953, (Station 0+30)]. FS Date: 5/16/2016 3:59:29 PM

#### Photo 1 of 3: UCIP\_SP\_2018\_48010\_21582.jpg



Concrete distribution box on LS toe.

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

## **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/13/2018 03/13/2018	Zach Jojola

LM Start	<b>0.25</b> Rating ** A/W			Issue No.		32 (cont)
LM End	0.25	0.25 Issue Type + Ma				
Category	Suppleme	ental		GPS La	atitud	le/Longitude
Calegory				Start		End
Item	DWR UC	IP LMA Respo	onsibility	38.7222	22 °	38.722222°
пеш				-121.6663	57°	-121.666357 °
DWR ID						

# Comment Code

#### Inspector Comment

FS\_ID:48010 DS\_ID:19360 EP\_NO: 9302

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: Pipe has been grouted in place under permit 18987, 2015Pipe completely rusted through on LS slope of levee at toe/headwall of concrete distribution box. Pipe needs replacement or proper abandonment. Pipe not visible at outlet.

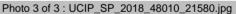
FIELD\_STRUCT\_DESC: \*ABANDONED\* 36-inch corrugated metal drainage pipe through the levee, 27 feet below the crown. Slide gate on the waterside (WS) end. 12-foot by 6-foot concrete box on the landside (LS) end. (36-inch pipe [HLM 1.62] authorized under Automatic Board Order (ABO) issued as Permit No. 9302, 1974 - Barbara Lowe Elliott; 36-inch pipe abandoned by removing ends and pumping pipe full of concrete under Permit No. 18987, 2016 - Knaggs Ranch, LLC, care of John Brennan). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual 127, June 1953, (Station 0+30)]. FS Date: 5/16/2016 3:59:29 PM

 LM Start
 0.25
 Rating \*\*
 A/W
 Issue No.
 32 (cont)

 LM End
 0.25
 Issue Type +
 Ma
 Location \*



Slide gate on metal stand on WS toe. Pipe opening not visible.





Pipe failure at connection to concrete box on LS toe.

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/13/2018 03/13/2018	Zach Jojola

LM Start	0.41	Rating **	M	Issue No.	ue No. <b>25</b>	
LM End	0.84	Issue Type +	Ma	Location *	on * WS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude
Calegory				Start		End
Item	Vegetatio	n		38.7242	09°	38.727646°
пеш			-121.6679	19°	-121.674378°	
DWR ID DWR_NA0008_01_s _ 2018_25						
		Comn	nent Cod	le		
V1 : Contro	ol annual g	rass and wee	ds on th	e levee slo	pes a	and
easements	S.					
		Inspecto	or Comm	nent		

No Photos

LM Start	0.41	Rating **	М	Issue No.		24
LM End	0.84	Issue Type +	Ma	Location *		LS
Category	Earthen L	Earthen Levee				e/Longitude
Calegory			Start		End	
Item	Vegetatio	Vegetation			)9°	38.727646 °
пеш				-121.66791	9 °	-121.674379 °
DWR ID	DWR_NA0	008_01_s _ 201	8_24			

Comment Code

V1 : Control annual grass and weeds on the levee slopes and easements.

Inspector Comment

No	<b>Photos</b>

LM Start	1.74	Rating **	С	Issue No.		28	
LM End	1.87	Issue Type +	Ma	Location *		LS	
Category Earthen Levee				GPS La	titud	le/Longitude	
Calegory				Start		End	
Item	Animal Co	ontrol		38.73710	)4 °	38.738684	0
item			-121.68562	24 °	-121.687077	0	
DWR ID DWR_NA0008_01_f _ 2017_28							
Comment Code							

Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

Multiple rodent holes on section of landside slope.

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En: Enforcement

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

## **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/13/2018 03/13/2018	Zach Jojola

LM Start	2.04	Rating **	М	Issue No.		23		
LM End	2.47	Issue Type +	Ma	Location *		LS		
Category	Earthen L	evee		GPS La	atitud	le/Longitude		
Calegory				Start		End		
Item	Vegetatio	n		38.7406	31 °	38.745733 °		
пеш				-121.6888	20°	-121.693487 °		
DWR ID	DWR ID DWR_NA0008_01_s _ 2018_23							
		Comn	nent Coc	le				
V1 : Contro	ol annual g	grass and wee	ds on th	e levee slop	oes a	and		
easements	S.							
		Inspecto	or Comm	nent				

No Photos

LM Start	2.58	Rating **	М	Issue No.		36
LM End	2.58	Issue Type +	Ma	Location *		
Category	Suppleme	ental		GPS La	atitud	e/Longitude
Calegory				Start		End
Item	DWR UC	IP LMA Respo	onsibility	38.7471	10°	38.747110 °
пеш				-121.6944	15 °	-121.694415 °
DWR ID						

### Comment Code

#### Inspector Comment

FS\_ID:11067 DS\_ID:19364 EP\_NO: 9307

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Siphon breaker on LS burried or broken off and missing.

FIELD\_STRUCT\_DESC: 1 of 2: 14-inch steel drainage pipe through the levee, 5.4 feet below the crown. Pump house on a pile structure at the landside (LS) toe. Siphon breaker on the LS slope. Service pole and anchor at the LS toe. (14-inch pipe [HLM 2.62] authorized under Automatic Board Order (ABO) issued as Permit No. 9307, 1974 - Azalene E. Lowe; a 12-foot section of an existing 14-inch pipe on LS replaced and name change under Permit No. 9307-1, 2016 - Ann Grube). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual 127, June 1953, (Station 123+25)].

FS Date: 4/5/2013



Pump and pipe on LS toe.

NA0008

#### Flood Control Project Maintenance Levee Inspections

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

## **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/13/2018 03/13/2018	Zach Jojola

LM Start	2.58	Rating **	М	Issue No.	37	
LM End	2.58	Issue Type +	Ма	Location *		
Supplemental				GPS Latitude/Longitude		
Calegory				Start End		
Item	DWR UCI	P LMA Respo	onsibility	38.7472	04°	38.747204 °
пеш				-121.6944	40°	-121.694440 °
DWR ID						
Comment Code						

#### Inspector Comment

FS\_ID:13205 DS ID:19391 EP\_NO: 9307

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Walkway to actuater slide gate is missing. No

method of actuating slide gate.

FIELD STRUCT DESC: 2 of 2: 48-inch by 48-inch reinforced concrete box drainage culvert through the levee, 23 feet below the crown. Walkway to slide gate on the waterside (WS) end. Concrete headwalls on both ends. Service pole and anchor at the landside (LS) toe. Concrete headwalls on both ends. (four foot by four foot culvert [HLM 2.62] authorized under Automatic Board Order (ABO) issued as Permit No. 9307, 1974 - Azalene E. Lowe). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual 127, June 1953, (Station 123+55.5)].

FS Date: 4/5/2013

LM Start	2.58	Rating **	М	Issue No.	37 (cont)
LM End	2.58	Issue Type +	Ma	Location *	



Slide gate and concrete headwall on WS toe.

#### Photo 2 of 3: UCIP\_SP\_2018\_13205\_21601.jpg



Concrete inlet on LS toe.

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

## **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/13/2018 03/13/2018	Zach Jojola

LM Start	2.58	Rating **	М	Issue No.	. 37 (cont)		
LM End	2.58	Issue Type +	Ма	Location *			
Supplemental			GPS Latitude/Longitude				
Calegory				Start		End	
Item	DWR UC	P LMA Respo	onsibility	38.7472	04°	38.747204	0
пеш				-121.694440		-121.694440	0
DWR ID							
Comment Code							

#### Inspector Comment

FS\_ID:13205 DS\_ID:19391 EP\_NO: 9307

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Walkway to actuater slide gate is missing. No

method of actuating slide gate.

FIELD\_STRUCT\_DESC: 2 of 2: 48-inch by 48-inch reinforced concrete box drainage culvert through the levee, 23 feet below the crown. Walkway to slide gate on the waterside (WS) end. Concrete headwalls on both ends. Service pole and anchor at the landside (LS) toe. Concrete headwalls on both ends. (four foot by four foot culvert [HLM 2.62] authorized under Automatic Board Order (ABO) issued as Permit No. 9307, 1974 - Azalene E. Lowe). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual 127, June 1953, (Station 123+55.5)].

FS Date: 4/5/2013

#### Photo 3 of 3: UCIP\_SP\_2018\_13205\_21605.jpg



Inlet located next to concrete headwall on LS toe.

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

## **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/13/2018 03/13/2018	Zach Jojola

LM Start	2.67	Rating **	A/W	Issue No.	38	
LM End	2.67	Issue Type +	Ма	Location *		
Supplemental				GPS Latitude/Longitude		
Calegory				Start End		
Item	DWR UCI	P LMA Respo	onsibility	38.7483	91 °	38.748391 °
пеш				-121.6948	14 °	-121.694814 °
DWR ID						
Comment Code						

#### Inspector Comment

FS\_ID:16105 DS\_ID:19365 EP\_NO: 9301

Repair Type: No Action Needed Crossing Status: Found UCIP Comments:

FIELD\_STRUCT\_DESC: 1 of 2: 18-inch steel drainage pipe through the levee, 6.4 feet below the crown. Siphon breaker on the waterside (WS) slope. Pump house mounted on concrete box in irrigation ditch at the landside (LS) toe. (one 18-inch and one 24-inch pipes [HLM 2.7] authorized under Automatic Board Order (ABO) issued as Permit No. 9301, 1974 - Reclamation District No. 730). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual 127, June 1953, (Station 128+00)].

 LM Start
 2.67
 Rating \*\*
 A/W
 Issue No.
 38 (cont)

 LM End
 2.67
 Issue Type +
 Ma
 Location \*



Pipe on WS slope.

#### Photo 2 of 3: UCIP\_SP\_2018\_16105\_27209.jpg



Pumphouse and pipe on LS toe.

NA0008

#### Flood Control Project Maintenance Levee Inspections

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

## **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/13/2018 03/13/2018	Zach Jojola

LM Start	2.67	Rating **	A/W	Issue No.		38 (cont)	
LM End	2.67	Issue Type +	Ма	Location *			
Category	Supplemental			GPS Lat	tud	le/Longitude	
Calegory						End	
Item	DWR UC	IP LMA Respo	nsibility	38.74839	1°	38.748391	0
пеш				-121.69481	4°	-121.694814	0
DWR ID							

## Inspector Comment

Comment Code

FS\_ID:16105 DS\_ID:19365 EP\_NO: 9301

FS Date: 4/5/2013

Repair Type: No Action Needed Crossing Status: Found UCIP Comments:

FIELD\_STRUCT\_DESC: 1 of 2: 18-inch steel drainage pipe through the levee, 6.4 feet below the crown. Siphon breaker on the waterside (WS) slope. Pump house mounted on concrete box in irrigation ditch at the landside (LS) toe. (one 18-inch and one 24-inch pipes [HLM 2.7] authorized under Automatic Board Order (ABO) issued as Permit No. 9301, 1974 - Reclamation District No. 730). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual 127, June 1953, (Station 128+00)].



Siphon breaker on WS slope.

LM Start	2.67	Rating **	A/W	Issue No.		39
LM End	2.67	Issue Type +	Ma	Location *		
Category	Supplemental			GPS La	titud	le/Longitude
Calegory				Start		End
Item	DWR UC	IP LMA Respo	onsibility	38.7484	04°	38.748404 °
item				-121.6948	18°	-121.694818 °
DWR ID						

## Comment Code

#### Inspector Comment

FS\_ID:16106 DS\_ID:19392 EP\_NO: 9301

Repair Type: No Action Needed Crossing Status: Found UCIP Comments:

FIELD\_STRUCT\_DESC: 2 of 2: 24-inch steel drainage pipe through the levee, 7.3 feet below the crown. Pump house mounted on concrete box in irrigation ditch at the landside (LS) toe. Siphon breaker in riser on the waterside (WS) slope. (one 24-inch and one 18-inch pipes [HLM 2.7] authorized under Automatic Board Order (ABO) issued as Permit No. 9301, 1974 - Reclamation District No. 730). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual 127, June 1953, (Station 128+00)].

FS Date: 4/5/2013

#### Photo 1 of 3: UCIP\_SP\_2018\_16106\_27213.jpg



Pumphouse and pipe on LS toe.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

## **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/13/2018 03/13/2018	Zach Jojola

LM Start	2.67	Rating **	A/W	Issue No.	39 (cont)	
LM End	2.67	Issue Type +	Ма	Location *		
Category			GPS Latitude/Longitude			
Calegory				Start		End
Item	DWR UC	P LMA Respo	onsibility	38.7484	04°	38.748404 °
пеш				-121.6948	18 °	-121.694818 °
DWR ID						
Comment Code						

### Inspector Comment

FS\_ID:16106 DS\_ID:19392 EP\_NO: 9301

Repair Type: No Action Needed Crossing Status: Found UCIP Comments:

FIELD\_STRUCT\_DESC: 2 of 2: 24-inch steel drainage pipe through the levee, 7.3 feet below the crown. Pump house mounted on concrete box in irrigation ditch at the landside (LS) toe. Siphon breaker in riser on the waterside (WS) slope. (one 24-inch and one 18-inch pipes [HLM 2.7] authorized under Automatic Board Order (ABO) issued as Permit No. 9301, 1974 - Reclamation District No. 730). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual 127, June 1953, (Station 128+00)].

FS Date: 4/5/2013

LM Start	2.67	Rating **	A/W	Issue No.	39 (cont)
LM End	2.67	Issue Type +	Ma	Location *	



Siphon breaker on WS slope



Pipe on WS slope.

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

## **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/13/2018 03/13/2018	Zach Jojola

LM Start	2.70	Rating **	A/W	Issue No.		41	
LM End	2.70	Issue Type +	Ма	Location *			
Supplemental				GPS Latitude/Longitude			
Calegory	gory					End	
Item	DWR UCI	P LMA Respo	onsibility	38.7489	09°	38.748909 °	
пеш				-121.6948	11 °	-121.694811 °	
DWR ID							
Comment Code							

#### Inspector Comment

FS\_ID:11244 DS\_ID:19394 EP\_NO: 8752

Repair Type: No Action Needed Crossing Status: Found UCIP Comments:

FIELD\_STRUCT\_DESC: 1 of 2: 30-inch asphalt coated steel drainage pipe through the levee, 3 feet below the crown. Siphon breaker on pipe on the waterside (WS) shoulder. Pump on a steel pile structure at the landside (LS) toe. (Permit No. 8752, 1973 - Reclamation District No. 730). Some design drawings available in permit. [Additional

Reference(s): DWR Levee Log, 1990].

FS Date: 4/5/2013

LM Start	2.70	Rating **	A/W	Issue No.	41 (cont)
LM End	2.70	Issue Type +	Ma	Location *	



Pump on steel pile structure at LS toe with pipe aon slope.

### Photo 2 of 2: UCIP\_SP\_2018\_11244\_18602.jpg



Siphon breaker on pipe at WS slope.

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

## **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/13/2018 03/13/2018	Zach Jojola

LM Start	2.71	Rating **	A/W	Issue No.	42	
LM End	2.71	Issue Type +	Ма	Location *		
Category			GPS Latitude/Longitude			
Calegory						End
Item	DWR UCI	P LMA Respo	nsibility	38.7489	29°	38.748929°
item				-121.6947	49 °	-121.694749°
DWR ID						
Comment Code						

## Inspector Comment

FS\_ID:11247 DS ID:19395 EP\_NO: 8752

Repair Type: No Action Needed Crossing Status: Found UCIP Comments:

FIELD\_STRUCT\_DESC: 2 of 2: 24-inch steel drainage pipe through the levee, 3 feet below the crown. Siphon breaker on pipe on the waterside (WS) shoulder with a pump on a steel pile structure at the landside (LS) toe. Butterfly shutoff valve at the LS toe. (Permit No. 8752, 1973 Reclamation District No. 730). Some design drawings available. [Additional Reference(s): DWR Levee Log, 1990].

FS Date: 4/5/2013

LM Start	2.71	Rating **	A/W	Issue No.	42 (cont)
LM End	2.71	Issue Type +	Ma	Location *	



Pump on steel pile structure with butterfly valve and pipe on LS slope.

### Photo 2 of 2: UCIP\_SP\_2018\_11247\_18604.jpg



Siphon breaker on pipe at WS shoulder.

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

## **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/13/2018 03/13/2018	Zach Jojola

LM Start	3.36	Rating **	М	Issue No.		2	
LM End	3.44	Issue Type +	Ма	Location *		WS	
Category				GPS Latitude/Longitude			
Calegory	Calegory			Start		End	
Item	2015 USACE Erosion Survey,			38.75843	32°	38.759332 °	
пеш	DRAFT			-121.69515	8°	-121.696063 °	
DWR ID	DWR_NA0	008_01_s _ 201	6_2				
Comment Code							

#### Inspector Comment

2011 - Toe scour and bank slumping. 2015: Site is part of the extended inventory, last inspected 2011. [2015 Site ID: KLR\_3-5\_R]

Photo 1 of 3: SP\_2018\_NA0008\_256\_20\_20180313\_00045.jpg

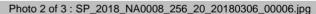
No Photos



Updated view of erosion on the waterside slope. Spring 2018.

3.50 Rating \*\* Issue No. LM Start 20 LM End 3.50 Issue Type + Location \* WS Earthen Levee GPS Latitude/Longitude Category Start End Erosion / Bank Caving 38.759910° 38.759910 ° Item -121.696920 ° -121.696920 ° DWR ID DWR\_NA0008\_01\_f \_ 2015\_20 Comment Code E2: Schedule repair of erosion site prior to the next inspection. Inspector Comment

LM Start	3.50	Rating **	U	Issue No.	20 (cont)
LM End	3.50	Issue Type +	Ma	Location *	WS





View of the erosion on the waterward side of the levee looking upstream. Fall 2015.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

## **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/13/2018 03/13/2018	Zach Jojola

LM Start	3.50	Rating **	U	Issue No.	20 (cont)		
LM End	3.50	Issue Type +	Ma	Location *		WS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Category				Start		End	
Item	Erosion /	38.7599	10°	38.759910°			
item				-121.696920 ° -121.6969			
DWR ID DWR_NA0008_01_f _ 2015_20							
		Comn	nent Cod	de			
E2 : Sched	dule repair	of erosion site	e prior to	the next in	spec	ction.	
		Inspecto	or Comm	nent			



Deep erosion at the bottom of the waterside slope 3-4 foot cut. Fall 2013

LM Start	3.78	Rating **	М	Issue No.		30	
LM End	3.78	Issue Type +	Ma	Location *		WS	
Category	Earthen L	evee		GPS La	atitud	le/Longitude	
Category				Start		End	
Item	Erosion / Bank Caving				86°	38.762886 °	
item				-121.7004	-121.700406 °		
DWR ID DWR_NA0008_01_s _ 2017_30							
		Comn	nent Cod	de			
E2 : Sched	dule repair	of erosion site	e prior to	the next in	spe	ction.	
		Inspecto	or Comm	nent			
Hole is at	the toe of t	he levee on th	ne water	ward side.			



View of the erosion at the toe of the levee on the waterward side. Spring 2016.

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

## **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/13/2018 03/13/2018	Zach Jojola

LM Start	3.86	Rating **	M	Issue No.		31		
LM End	3.86	Issue Type +	Ma	Location *	WS			
Category	Earthen L	evee		GPS La	atituc	de/Longitude		
Category				Start		End		
Erosion / Bank Caving			38.7637	51 °	38.763751 °			
пеш				-121.701398°		-121.701398°		
DWR ID DWR_NA0008_01_s _ 2018_31								
		Comn	nent Cod	le				
E1 : Note a	and monito	or erosion site						
		Inspecto	or Comm	nent				
Erosion at the toe of the levee. LMA is monitoring erosion with stakes.								



View of the erosion at the toe of the levee on the waterward side. Spring 2016.

LM Start	3.88	Rating **	M	Issue No.		1	
LM End	3.95	Issue Type +	Ma	Location *		WS	
Category				GPS Latitude/Longitude			
Calegory						End	
Item		ACE Erosion S	Survey,	38.76403	87°	38.764905 °	
пеш	DRAFT			-121.70143	84 °	-121.702074 °	
DWR ID	DWR_NA0	008_01_f _ 201	7_1				

#### Comment Code

#### Inspector Comment

2011 - Toe erosion and erosion pockets from tree popouts. More tree popouts are expected due to the eroding toe. 2015: Site is part of the extended inventory, last inspected 2011. [2015 Site ID: KLR\_3-9\_R]

No Photos

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/13/2018 03/13/2018	Zach Jojola

LM Start	0.97	Rating **	M	Issue No.		21
LM End	1.88	Issue Type +	Ma	Location *		LS
Category Earthen Levee			GPS La	atitud	le/Longitude	
Category				Start		End
Vegetation				38.7329	67°	38.743596°
пеш					-121.689011 °	
DWR ID DWR_NA0008_02_s _ 2018_21						
		Comn	nent Cod	le		
V1 : Contro easements		grass and wee	ds on th	e levee slo	pes	and
		Inspecto	or Comm	nent		



View of vegetation on the landside slope. Spring 2018.

LM Start	0.97	Rating **	М	Issue No.		23
				Location *		
LM End	1.88	Issue Type +	Ma	Location "		WS
Category Earthen Levee				GPS La	atitud	le/Longitude
Odlogory				Start		End
Item	Vegetation			38.7329	67°	38.743596 °
Item				-121.6791	-121.689011 °	
DWR ID	DWR_NA0	008_02_s _ 201	8_23			
		Comn	nent Cod	le		
V1 : Contre easements		grass and wee	ds on th	e levee slop	oes a	and
	Inspector Comment					

No Photos

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

## **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/13/2018 03/13/2018	Zach Jojola

LM Start	2.32	Rating **	М	Issue No.		20
LM End	2.85	Issue Type +	Ma	Location *		LS
Category Earthen Levee			GPS La	atitud	e/Longitude	
Calegory				Start		End
Item	Vegetation			38.7490	99°	38.756799°
пеш				-121.692831 ° -121.692		
DWR ID DWR_NA0008_02_s _ 2018_20						
		Comn	nent Cod	de		
V1 : Contro	ol annual g	rass and wee	ds on th	e levee slo	pes a	and
easements	3.					
		Inspecto	or Comm	nent		

No Photos

LM Start	2.72	Rating **	М	Issue No.		2	
LM End	2.93	Issue Type +	Ma	Location *	WS		
Category	Suppleme	ental	GPS Latitude/Longitude				
Calegory				Start		End	
Item		2015 USACE Erosion Survey,			99°	38.757925 °	
пеш	DRAFT			-121.69265	3°	-121.693048 °	
DWR ID	DWR_NA0	008_02_s _ 201	6_2				
Comment Code							

No Photos

#### Inspector Comment

2006 - The whole levee toe area is slowly slumping into the channel (creep) due to dewatering and poor slope soils. Occasional piping in the levee slope evident as well. Pistol-butted trees at the levee toe indicate slow retreat. 2011 - Multiple scallops throughout the site and slumping of the toe. 2015: Site is part of the extended inventory, last inspected 2011. [2015 Site ID: KLR\_3-0\_L]

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

## **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/13/2018 03/13/2018	Zach Jojola

LM Start	2.98	Rating **	М	Issue No.		5	
LM End	3.11	Issue Type +	Ma	Location *	WS		
Category	Suppleme	ental		GPS Latitude/Longitude			
Calegory				Start		End	
Item	2015 USACE Erosion Survey,			38.75858	37°	38.760053	0
пеш	DRAFT			-121.6933	59°	-121.694686	0
DWR ID	DWR_NA0	008_02_s _ 201	6_5				
		Comn	nent Cod	le			

#### Inspector Comment

2006 - The whole levee toe area is slowly slumping into the channel (creep) due to dewatering and poor slope soils. Occasional piping in the levee slope evident as well. Pistol-butted trees at the levee toe indicate slow retreat. 2011 - Slumping of the levee toe. 2015: Site is part of the extended inventory, last inspected 2011. [2015 Site ID: KLR\_3-1\_L]

LM Start	3.60	Rating **	М	Issue No.		3	
LM End	3.73	Issue Type +	Ma	Location *		WS	
Catagony	Supplemental GPS Latit			atitude/Longitude			
Calegory				Start		End	
Item	2015 USACE Erosion Survey,		38.7655	22 °	38.767336	0	
пеш	DRAFT			-121.7006	08 °	-121.701023	0
DWR ID	DWR_NA0	008_02_s _ 201	6_3				
		Comn	nent Cod	le			
							_

#### Inspector Comment

2011 - The toe has eroded away and there are a few scallops from bank slumping. 2015: Site is part of the extended inventory, last inspected 2011. [2015 Site ID: KLR\_3-7\_L]

No Photos

No Photos

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence En: Enforcement

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### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

## **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/13/2018 03/13/2018	Zach Jojola

LM Start	3.63	Rating **	М	Issue No.		16
LM End	4.23	Issue Type +	Ma	Location *		LS
Category Earthen Levee				GPS La	atitud	e/Longitude
Calegory				Start End		
Item	Vegetatio	getation			78°	38.774476 °
пеш			-121.70			-121.702854°
DWR ID	DWR_NA0	008_02_s _ 201	8_16			
		Comn	nent Cod	le		
V1 : Contro	ol annual g	rass and wee	ds on th	e levee slo	pes a	and
easements	S.					
		Inspecto	or Comm	nent		

No Photos

LM Start	3.93	Rating **	A/W	Issue No.		27	
LM End	3.93	Issue Type +	Ма	Location *			
Category	Suppleme	ental		GPS La	titud	le/Longitude	
Calegory				Start		End	
Item	DWR UC	IP LMA Respo	onsibility	38.77031	7°	38.770317 °	0
пеш				-121.70128	81 °	-121.701281 °	0
DWR ID							

#### Comment Code

#### Inspector Comment

FS\_ID:11293 DS\_ID:19374 EP\_NO: 9317

Repair Type: No Action Needed

Crossing Status: Found UCIP Comments:

FIELD\_STRUCT\_DESC: 1 of 2: 16-inch steel discharge pipe through the levee, 3 feet below the crown. Pump house on pile structure in drainage ditch on the landside (LS). Siphon breaker on the pipe on the waterside (WS). Service pole at the pump house. (16-inch pipe [HLM 3.97] authorized under Automatic Board Order (ABO) issued as Permit No. 9317, 1974 - Reclamation District No. 819). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual 127, June 1953, (Station 211+05) (15-inch pipe listed)]. FS Date: 4/9/2013



Pump on LS toe.

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

## **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/13/2018 03/13/2018	Zach Jojola

LM Start	3.93	Rating **	A/W	Issue No.	27 (cont)	
LM End	3.93	Issue Type +	Ma	Location *		
Category				GPS Latitude/Longitude		
Calegory	Category					End
Item	DWR UC	IP LMA Respo	onsibility	38.7703	17°	38.770317°
пеш				-121.7012	81 °	-121.701281 °
DWR ID						
Comment Code						

#### Inspector Comment

FS\_ID:11293 DS\_ID:19374 EP\_NO: 9317

Repair Type: No Action Needed Crossing Status: Found UCIP Comments:

FIELD\_STRUCT\_DESC: 1 of 2: 16-inch steel discharge pipe through the levee, 3 feet below the crown. Pump house on pile structure in drainage ditch on the landside (LS). Siphon breaker on the pipe on the waterside (WS). Service pole at the pump house. (16-inch pipe [HLM 3.97] authorized under Automatic Board Order (ABO) issued as Permit No. 9317, 1974 - Reclamation District No. 819). [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual 127, June 1953, (Station 211+05) (15-inch pipe listed)]. FS Date: 4/9/2013

LM Start	3.93	Rating **	A/W	Issue No.	27 (cont)
LM End	3.93	Issue Type +	Ma	Location *	



Pump and pipes on LS toe.

#### Photo 3 of 3: UCIP\_SP\_2018\_11293\_18673.jpg



16-inch pipe with siphon breaker on WS shoulder.

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/13/2018 03/13/2018	Zach Jojola

LM Start	3.94	Rating **	A/W	Issue No.	28	
LM End	3.94	Issue Type +	Ма	Location *		
Category				GPS Latitude/Longitude		
Calegory	Category					End
Item	DWR UC	IP LMA Respo	onsibility	38.7703	35 °	38.770335°
пеш				-121.7012	86 °	-121.701286°
DWR ID						
Comment Code						

### Inspector Comment

FS\_ID:11291 DS\_ID:19401 EP\_NO: 9317

Repair Type: No Action Needed Crossing Status: Found UCIP Comments:

FIELD\_STRUCT\_DESC: 2 of 2: 24-inch steel discharge pipe through the levee, 9 feet below the crown. Pump house on pile structure in drainage ditch on the landside (LS). Siphon breaker on the pipe on the waterside (WS) with a butterfly shutoff valve. Service pole at the pump house. (Permit No. 9317, 1974 - Reclamation District No. 819). Pipe replaced in 2012. [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual 127, June 1953, (Station 210+99)]. FS Date: 4/9/2013

LM Start	3.94	Rating **	A/W	Issue No.	28 (cont)
LM End	3.94	Issue Type +	Ma	Location *	



Pumphouse at LS toe.

#### Photo 2 of 3: UCIP\_SP\_2018\_11291\_18668.jpg



Pipe in grass on WS shoulder.

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

## **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/13/2018 03/13/2018	Zach Jojola

LM Start	3.94	Rating **	A/W	Issue No.	28 (cont)			
LM End	3.94	Issue Type +	Ма	Location *				
Category	Supplemental				GPS Latitude/Longitude			
Calegory			Start		End			
Item	DWR UCI	IP LMA Respo	nsibility	38.77033	35 °	38.770335°		
item				-121.70128	36 °	-121.701286°		
DWR ID								
Comment Code								

## Inspector Comment

FS\_ID:11291 DS\_ID:19401 EP\_NO: 9317

Repair Type: No Action Needed Crossing Status: Found UCIP Comments:

FIELD\_STRUCT\_DESC: 2 of 2: 24-inch steel discharge pipe through the levee, 9 feet below the crown. Pump house on pile structure in drainage ditch on the landside (LS). Siphon breaker on the pipe on the waterside (WS) with a butterfly shutoff valve. Service pole at the pump house. (Permit No. 9317, 1974 - Reclamation District No. 819). Pipe replaced in 2012. [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual 127, June 1953, (Station 210+99)].

FS Date: 4/9/2013



Siphon breaker and butterfly valve on WS shoulder.

LM Start	4.12	Rating **	М	Issue No.		17		
LM End	4.23	Issue Type +	Ma	Location *		WS		
Category Earthen Levee				GPS Latitude/Longitude				
Calegory	Category					End		
Item	Vegetation				66 °	38.774477 °		
пеш				-121.7021	29°	-121.702854°		
DWR ID DWR_NA0008_02_s _ 2018_17								
	Comment Code							

V1 : Control annual grass and weeds on the levee slopes and easements.

Inspector Comment

No Photos

Location		Natility
LS: Land Side	N/A: Not Applicable	A : Acc
WS: Water Side		M : Min
CP · Crown		11 · Hns

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsole

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

## **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/13/2018 03/13/2018	Zach Jojola

LM Start	4.30	Rating **	М	Issue No.	4		
LM End	4.55	Issue Type +	Ма	Location *	WS		
Category			GPS La	atitud	e/Longitude		
Calegory	Category					End	
Item	2015 USACE Erosion Survey,			38.7752	71 °	38.778115	0
пеш	DRAFT			-121.7036	85 °	-121.706195	0
DWR ID	DWR_NA0	008_02_s _ 201	6_4				
Comment Code							

#### Inspector Comment

2011 - This site is the downstream section of the old KLR 5.3L site. Levee toe is slowly retreating. Cracking on top of the levee may indicate potential mass movement. 2015: Site is part of the extended inventory, last inspected 2011. [2015 Site ID: KLR\_4-7\_L]

LM Start	4.53	Rating **	A/W	Issue No.		15		
LM End	4.56	Issue Type +	Ma	Location *		CR		
Category	Earthen Levee				GPS Latitude/Longitude			
Calegory	Category					End		
Item	Cracking			38.7781	20°	38.778437°		
пеш				-121.7057	54°	-121.706050 °		
DWR ID	DWR_NA0	008_02_s _ 201	8_15					

#### Comment Code

CR1: Monitor and have inspected by geotechnical engineer.

#### Inspector Comment

150' long and 1" wide crack that has swelled up from the rain. RD 108 has the crack flagged and continues to monitor.

LM Start	4.84	Rating **	M	Issue No.	14		
LM End	5.02	Issue Type +	Ma	Location *	LS		
Category Earthen Levee				GPS Latitude/Longitude			
Calegory				Start		End	
Vegetation ltem				38.7813	72 °	38.783151 °	
пеш				-121.7097	10°	-121.711998°	
DWR ID DWR_NA0008_02_s _ 2018_14							
0 10 1							

Comment Code

V1 : Control annual grass and weeds on the levee slopes and easements.

Inspector Comment

No Photos

No Photos

No Photos

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS : Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En: Enforcement

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

## **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/13/2018 03/13/2018	Zach Jojola

LM Start	5.34	Rating **	С	Issue No.	13			
LM End	5.34	Issue Type +	Ma	Location *	LS			
Category	Earthen Levee			GPS Latitude/Longitude				
Category				Start		End		
Item	Animal Co	nimal Control			38.786504°		0	
пеш				-121.716261 °		-121.716261	0	
DWR ID	DWR_NA0008_02_f _ 2017_13							
Comment Code								
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.								

Inspector Comment

No Photos

	LM Start	5.36	Rating **	М	Issue No.		6	
	LM End	5.93	Issue Type +	Ma	Location *	WS		
	Category	Suppleme	GPS Latitude/Longitude					
Calegory				Start		End		
	Item	2015 USACE Erosion Survey,			38.7865	66°	38.792395	0
item		DRAFT			-121.7167	24 °	-121.724091	0
	DWR ID DWR_NA0008_02_s _ 2016_6							
ĺ	Comment Code							

#### Inspector Comment

2011 - This site is the upstream section of the old KLR 5.3L site. Levee toe is slowly retreating. Cracking on top of the levee may indicate potential mass movement. 2015: Site is part of the extended inventory, last inspected 2011. [2015 Site ID: KLR\_5-8\_L]

No Photos

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain

+ Issue Type Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence

En: Enforcement

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

# **Knights Landing Ridge Drainage District**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/13/2018 03/13/2018	Zach Jojola

LM Start	5.72	Rating **	С	Issue No.		19	
LM End	5.72	Issue Type +	Ma	Location *	LS		
Category	Earthen Levee			GPS Latitude/Longitude			
Category			Start		End		
Animal Control				38.7903	85°	38.790385°	
пеш		-121.721131 °		31 °	° -121.721131 °		
DWR ID DWR_NA0008_02_f _ 2015_19							
Comment Code							
A3 : No rodents visible, but rodent burrows visible; need to backfill and							
compact o	r grout bur	rows.					
		Inspecto	or Comm	nent			

No Photos

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement